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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER
CUTLER, ALBERT H

ART UNIT	PAPER NUMBER
2622	

NOTIFICATION DATE	DELIVERY MODE
11/28/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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	Application No.	Applicant(s)
Office Action Summary	10/811,840	SASAKI, GEN
	Examiner	Art Unit	
	ALBERT H. CUTLER	2622	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS,
WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>08 August 2008</u>.
2a) ☐ This action is **FINAL**.　　2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
   closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-11,13-16 and 18-24</u> is/are pending in the application.
　　4a) Of the above claim(s) <u>3-11</u> is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) <u>1,2,13-16 and 18-24</u> is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
　　a) ☐ All　b) ☐ Some * c) ☐ None of:
　　　　1. ☐ Certified copies of the priority documents have been received.
　　　　2. ☐ Certified copies of the priority documents have been received in Application No. _____.
　　　　3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage
　　　　　　application from the International Bureau (PCT Rule 17.2(a)).
　　* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
　　Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
　　Paper No(s)/Mail Date. _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1.   This office action is responsive to communication filed on August 8, 2008.

Response to Arguments

2.   Applicant's arguments, see pages 11 and 12, filed August 8, 2008, with respect

to the rejection(s) of claim(s) 1, 2, 13-16 and 18 under 35 U.S.C. 103(a) have been fully

considered and are persuasive. Therefore, the rejection has been withdrawn.

However, upon further consideration, a new ground(s) of rejection is made in view of

Kuo et al. (US 6,400,471).

Claim Objections

3.   Claims 21 and 22 are objected to because of the following informalities: Lack of

clarity and precision.

4.   Claims 21 and 22 recite "data obtained from said storage". However, no storage

has been previously defined in claims 21 and 22 or the parent claims 1 and 18. Upon

further examination, it appears that claims 21 and 22 should recite "data obtained from

said storage **unit**" in order to correspond with claims 1 and 18. The Examiner will

interpret claims 21 and 22 to recite "data obtained from said storage **unit**". Appropriate

correction is required.

Claim Rejections - 35 USC § 102

5.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public
use or on sale in this country, more than one year prior to the date of application for patent in the United
States.

6.   Claims 1, 2, 13-16 and 18-24 rejected under 35 U.S.C. 102(b) as being

anticipated by Kuo et al. (US 6,400,471).

        Consider claim 1, Kuo et al. teaches:

        An image processing apparatus for performing image processing on captured

data of an image of a desired subject (see digital camera, 100, figures 1, 2 and 11),

comprising:

        an image processing part (line reader, 620, DSP, 922, ping-pong buffers A and

B, 1130, and JPEG Hardware, 924, figure 11), including:

        a buffer memory (ping-pong buffers A and B, 1130, figure 11) for data storage

(The buffer memory (1130) stores image data processed by the DSP (922), column 11,

lines 34-47.);

        an image processing unit (DSP, 922) for performing a predetermined process on

said captured data to obtain image data (column 11, lines 34-39), and writing said

image data to said buffer memory (The image data is written into the buffer memory

(1130) from the DSP (922), column 11, lines 36-38.); and

        a compression unit (JPEG hardware, 924) for compressing said image data read

from said buffer memory (The image data is compressed using JPEG compression,

column 11, lines 34-36, column 7, lines 30-33.), wherein said buffer memory (1130) is

connected to receive only said image data from said image processing unit (922) and

connected to output said image data only to said compression unit (924, see figure 11,

column 11, lines 36-46); and

a storage unit (input/output buffer 1, 1110 and input/output buffer 2, 1140, figure 11) provided outside said image processing part (see figure 11).

Consider claim 2, and as applied to claim 1 above, Kuo et al. further teaches:

said buffer memory (ping-pong buffers A and B, 1130) includes a first buffer memory (A) and a second buffer memory (B), said image processing apparatus further comprising:

a control unit (CPU, 344, figure 2) being operative (column 5, lines 42-54) in such a manner that while said image processing unit (922) writes said image data either to said first buffer memory (A) or to said second buffer memory (B), said compression unit (924) selectively reads image data previously stored either in said first buffer memory (A) or in said second buffer memory (B) experiencing no writing of said image data by said image processing unit (See column 11, lines 36-46. One buffer is filled with image data from the DSP (922) while the other buffer is output to the JPEG hardware (924).).

Consider claim 13, and as applied to claim 1 above, Kuo et al. further teaches:

a first switching unit connected between said image processing unit and said buffer memory; and a second switching unit connected between said compression unit and said buffer memory (As the image data is alternately read into and out of the ping-pong buffers (1130), there must be a first switching unit connected between said image processing unit (922) and said buffer memory (1130), and a second switching unit

connected between said compression unit (924) and said buffer memory (1130), column

11, lines 36-46.).

Consider claim 14, and as applied to claim 13 above, Kuo et al. further teaches:

said buffer memory (1130) comprises first and second buffer memories (A and B)

connected in parallel (As parallel operations are performed involving buffer memories A

and B, they are connected in parallel, column 11, lines 38-46.).

Consider claim 22, and as applied to claim 1 above, Kuo et al. further teaches:

said image processing part comprises:

a first processing unit (line reader, 620) for performing a first processing on said

captured data and for storing first processed data in said storage unit (The line reader

(620) reads said captured data and stores first processed data in the input/output buffer

1 (1120) of said storage unit, column 11, lines 31-36.); and

a second processing unit (DSP, 922) for performing a second processing on said

first processed data obtained from said storage unit (1120) and outputting said image

data to said buffer memory (The DSP (922) processes data obtained from the

input/output buffer 1 (1120), and outputs the processed data to said buffer memory

(1130), column 11, lines 34-46.).

Consider claim 23, and as applied to claim 1 above, Kuo et al. further teaches:

said image processing part is connected to store data in and retrieve data from

said storage unit (Image data is stored in and retrieved from the input/output buffers

(1120 and 1140, figure 11), column 11, lines 34-51.).

Consider claim 24, and as applied to claim 1 above, Kuo et al. further teaches:

said compression unit (924) compressing said image data read from said buffer

memory (1130) and storing said image data in said storage unit (The compression unit

(924) reads data from the buffer memory (1130) and stores the data in the input/output

buffer 2 (1140) of the storage unit, figure 11, column 11, lines 36-51.).

Consider claim 15, Kuo et al. teaches:

An image processing apparatus for performing image processing on captured

data of an image of a desired subject (see digital camera, 100, figures 1, 2 and 11),

comprising:

an image processing part (line reader, 620, DSP, 922, ping-pong buffers A and

B, 1130, and JPEG Hardware, 924, figure 11), including:

first and second buffer memories (ping-pong buffers A and B, 1130) connected in

parallel for data storage (The buffer memory (1130) stores image data processed by the

DSP (922), column 11, lines 34-47. As parallel operations are performed involving

buffer memories A and B, they are connected in parallel, column 11, lines 38-46.);

an image processing unit (DSP, 922) for performing a predetermined process on

said captured data to obtain image data (column 11, lines 34-39), and alternatingly

writing said image data to said first and second buffer memories (Image data is alternately written into ping-pong buffers A and B from the DSP (922), column 11, lines 36-46.); and

a compression unit (JPEG hardware, 924) for compressing said image data alternatingly read from said first and second buffer memories (The image data is alternately read from ping-pong buffers A and B (column 11, lines 36-46), and compressed using JPEG compression, column 11, lines 34-36, column 7, lines 30-33.),

wherein said first and second buffer memories (A and B, 1130) are connected to receive only said image data from said image processing unit (922) and connected to output said image data only to said compression unit (924, see figure 11, column 11, lines 36-46).

Consider claim 16, and as applied to claim 15 above, Kuo et al. further teaches:

a first switching unit connected between said image processing unit and said first and second buffer memories; and a second switching unit connected between said compression unit and said first and second buffer memories (As the image data is alternately read into and out of the ping-pong buffers (1130), there must be a first switching unit connected between said image processing unit (922) and said first and second buffer memories (1130), and a second switching unit connected between said compression unit (924) and said first and second buffer memories (1130), column 11, lines 36-46.).

Consider claim 18, and as applied to claim 15 above, Kuo et al. further teaches:

a storage unit (input/output buffer 1, 1110 and input/output buffer 2, 1140, figure 11) externally connected to said image processing part (line reader, 620, DSP, 922, ping-pong buffers A and B, 1130, and JPEG Hardware, 924, see figure 11).

Consider claim 19, and as applied to claim 18 above, Kuo et al. further teaches:

said compression unit (924) storing compressed image data in said storage unit (input/output buffer 2, 1140, figure 11, column 11, lines 48-51).

Consider claim 20, and as applied to claim 18 above, Kuo et al. further teaches:

said image processing part being connected to store data in and retrieve data from said storage unit (The line reader (620) of said image processing part stores data in the input/output buffer 1 (1120) of said storage unit, and the DSP (922) of said image processing part retrieves data from the input/output buffer 1 (1120) of said storage unit, column 11, lines 34-36.).

Consider claim 21, and as applied to claim 18 above, Kuo et al. further teaches:

said image processing part comprises:

a first processing unit (line reader, 620) for performing a first processing on said captured data and for storing first processed data in said storage unit (The line reader (620) reads said captured data and stores first processed data in the input/output buffer 1 (1120) of said storage unit, column 11, lines 31-36.); and

a second processing unit (DSP, 922) for performing a second processing on said

first processed data obtained from said storage unit (1120) and outputting said image

data to said buffer memory (The DSP (922) processes data obtained from the

input/output buffer 1 (1120), and outputs the processed data to said buffer memory

(1130), column 11, lines 34-46.).

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to ALBERT H. CUTLER whose telephone number is

(571)270-1460. The examiner can normally be reached on Mon-Thu (9:00-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Sinh Tran can be reached on (571) 272-7564. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AC

/Sinh Tran/
Supervisory Patent Examiner, Art Unit 2622